

Application No.: 09/508977

Docket No.: 1997/F-237 (10811-00001-US)

AMENDMENTS TO THE CLAIMS

1-14 (cancelled)

15 (currently amended). A continuous fermentation process for the production of a biomass of ciliate cells containing a biogenous substance, comprising:

- (i) continuously cultivating ciliates in a volume of complex axenic aqueous culture medium to produce a biomass of ciliate cells containing a biogenous substance;
- (ii) harvesting said culture medium containing the produced biomass at an extraction rate of about 0.1 to about 12 times said volume per day; and
- (iii) replacing the harvested culture medium containing the biomass with the same amount of complex axenic aqueous culture medium, so as to maintain a continuous fermentation culture.

16 (currently amended). The fermentation process as claimed in claim 15, wherein the ciliates belong to one of the taxonomic groups Holotricha, Peritricha, Spirotricha, ~~and~~ Suctoria, Tetrahymena, Paramecium, Colpoda, Glaucoma, Parauronema, Engelmanniella, Stylonichia, Euplotes and Colpidium.

17 (currently amended). The fermentation process as claimed in claim 15, wherein the fermentation is carried out in a stirred, ~~or~~ bubble column or airlift fermenter.

18 (currently amended). The fermentation process as claimed in claim 15, wherein the fermentation is carried out at a pH in the range from pH 4 to pH 9 and ~~and/or~~ a fermentation temperature in the range from about 15 to about 40°C.

19 (currently amended). The fermentation process as claimed in claim 15, wherein the culture medium contains a carbon source which comprises one or more substances from the group consisting of: glucose, fructose, xylose, sucrose, maltose, starch, fucose, glucosamine, lactose, molasses, dextran, fatty acids, soya oil, sunflower oil, glycerol, glutamic acid, mannitol, skim-milk powder and acetate.

20 (currently amended). The fermentation process as claimed in claim ~~19~~ 18, wherein the concentration of the carbon source is ~~has a value in the range from~~ about 0.2 to about 20% by weight, based on the culture medium.

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- 21 (previously presented). The fermentation process as claimed in claim 15, wherein the medium contains a nitrogen source which comprises one or more substances from the group consisting of: peptones, yeast extract, malt extract, meat extract, skim-milk powder, casamino acid, corn steep liquor, Na-glutamate, urea, ammonium acetate, ammonium sulfate, ammonium chloride and ammonium nitrate.
- 22 (currently amended). The fermentation process as claimed in claim 21, wherein the concentration of the nitrogen source is ~~has a value in the range from~~ about 0.1 to about 10% by weight, based on the culture medium.
- 23 (previously presented). The fermentation process as claimed in claim 15, wherein the medium contains at least one phosphate source selected from the group consisting of potassium phosphate and potassium dihydrogen phosphate.
- 24 (previously presented). The fermentation process as claimed in claim 15, wherein the medium contains one or more substances selected from the group consisting of ammonium sulfate, sodium sulfate, magnesium, iron, copper, calcium, vitamins, and trace elements.
- 25 (currently amended). The fermentation process as claimed in claim 15 ~~any one of claims 15-24~~, wherein the medium contains killed biomass of feed organisms for ciliates.
- 26 (previously presented). The fermentation process as claimed in claim 15, wherein the produced biomass is separated off from the harvested culture medium by a method selected from the group consisting of centrifugation, tangential filtration, microfiltration, sedimentation and flotation.
- 27 (currently amended). The fermentation process as claimed in claim 15 additionally comprising the step of extracting from the produced biomass a biogenous substance selected from the group consisting of: peptides, proteins, enzymes, fatty acids, lipids, polysaccharides, nucleic acids, and secondary metabolites ~~and polymers~~ from the produced biomass.
- 28 (new). The fermentation process as claimed in claim 16, wherein the medium contains killed biomass of feed organisms for ciliates.

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- 29 (new). The fermentation process as claimed in claim 17, wherein the medium contains killed biomass of feed organisms for ciliates.
- 30 (new). The fermentation process as claimed in claim 18, wherein the medium contains killed biomass of feed organisms for ciliates.
- 31 (new). The fermentation process as claimed in claim 19, wherein the medium contains killed biomass of feed organisms for ciliates.
- 32 (new). The fermentation process as claimed in claim 20, wherein the medium contains killed biomass of feed organisms for ciliates.
- 33 (new). The fermentation process as claimed in claim 21, wherein the medium contains killed biomass of feed organisms for ciliates.
- 34 (new). The fermentation process as claimed in claim 22, wherein the medium contains killed biomass of feed organisms for ciliates.
- 35 (new). The fermentation process as claimed in claim 23, wherein the medium contains killed biomass of feed organisms for ciliates.
- 36 (new). The fermentation process as claimed in claim 24, wherein the medium contains killed biomass of feed organisms for ciliates.